

IN THE CLAIMS

Please replace all prior versions, and listings, of claims in the application with the following list of claims:

Please cancel claim 2 without prejudice or disclaimer.

1. (Currently Amended) A current source adapted to produce an output current comprising:

first and second circuit branches connected as a current source between first and second reference voltages to generate an output current, the first circuit branch ~~including~~ comprising first and second bipolar transistors, the base of the first transistor being connected to its collector, and a branch resistor connected at a junction node to a compensation resistor which is connected to the second reference voltage; and

a start-up circuit connected to generate a start-up current at the junction node which continues to flow after start-up whereby ~~[[the]]~~ a voltage across the compensation resistor increases with the first reference voltage and acts to reduce changes in the output current with the first reference voltage.

2. (Canceled)

3. (Currently Amended) A current source according to claim ~~[[2]]~~ 1, wherein the second circuit branch comprises third and fourth series-connected bipolar transistors, the third bipolar transistor being connected as a current mirror with the first bipolar transistor and the fourth bipolar transistor being connected as a current mirror with the second bipolar transistor.

4. (Currently Amended) A current source according to claim ~~[[2]]~~ 1, which comprises an output transistor having its base connected to the base of the first transistor, the collector current of the output transistor constituting the output current.

5. (Currently Amended) A current source according to claim [[2]] 1, wherein the branch resistor is connected between the junction node and the emitter of the second transistor.

6. (Currently Amended) ~~A current source according to claim 1, wherein the start-up circuit comprises a pair of start-up transistors connected in a current mirror configuration and a start-up resistor connected between the collector of one of said start-up transistors and said junction node~~ adapted to produce an output current comprising:

first and second circuit branches connected as a current source between first and second reference voltages to generate an output current, the first branch including a branch resistor connected at a junction node to a compensation resistor which is connected to the second reference voltage; and

a start-up circuit comprising a pair of start-up transistors connected in a current mirror configuration and a start-up resistor connected between a current path through one of said start-up transistors and said junction node, said start-up circuit being operable to generate a start-up current at the junction node which continues to flow after start-up whereby a voltage across the compensation resistor increases with the first reference voltage and acts to reduce changes in the output current with the first reference voltage.

7. (Original) A current source according to claim 3, wherein the area of the second transistor is larger than the area of the fourth transistor.

8. (New) A current source according to claim 1, wherein the start-up circuit comprises a pair of start-up transistors connected in a current mirror configuration and a start-up resistor connected between the collector of one of said start-up transistors and said junction node.